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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,849	10/15/2001	Raouf Botros	SDP274PA	3817

1333 7590 04/22/2004

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EXAMINER	
SHOSHO, CALLIE E	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/977,849	BOTROS, RAOUF	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,8 and 10-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,8 and 10-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections are overcome by applicant's amendment filed 9/11/03.

The new grounds of rejection as set forth below are necessitated by applicant's amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-5, 7-8, and 10-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 has been amended to recite "whereby the solvent dye is completely soluble in the volatile solvent to form a complete solution". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the above phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-3, 5, 7-8, 10-12, 14-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. 6,221,933) in view of Mead et al. (U.S. 5,596,027).

Zhu et al. disclose ink jet ink comprising 80-85% volatile solvent such as methyl ethyl ketone, 1-10% solvent dye such as Solvent Black 29, fluorinated surfactant, and 3-30% acrylic polymer such as styrene-acrylic polymer (col.3, lines 32-34, col.4, lines 51-55, col.5, lines 1-6, col.7, lines 18-23, 32-33, and 65-67, col.8, lines 23-25 and 52-56). Given that Zhu et al. disclose solvent dye identical to that presently claimed, i.e. Solvent Black 29, it is clear that the dye would intrinsically possess the same tolerance to water and solubility in volatile solvent as presently claimed. Further, given that Zhu et al. disclose ink comprising solvent and dye identical to that presently claimed and given that the dye is solvent dye and the solvent contains only low-boiling point organic solvent such as methyl ethyl ketone, it is clear that the solvent dye would intrinsically form complete solution as presently claimed.

The difference between Zhu et al. and the present claimed invention is the requirement in the claims of pH modifier.

Mead et al., which is drawn to ink jet ink, disclose the use of pH adjusting agent to maintain the pH of the ink at 7-10.6 wherein the pH adjusting agent includes triethanolamine and diethanolamine. The motivation for using pH adjusting agent is to produce ink with good water resistance (col.12, lines 20-40).

In light of the motivation for using ph modifier disclosed by Mead et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use pH modifier in the ink of Zhu et al. in order to produce ink with good water resistance, and thereby arrive at the claimed invention.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. in view of Mead et al. as applied to claims 1-3, 5, 7, 8, 10-12, 14-15, and 17 above, and further in view of Taniguchi et al. (U.S. 5,667,572).

The difference between Zhu et al. in view of Mead et al. and the present claimed invention is the requirement in the claims of specific type of dye.

Zhu et al. discloses the use of solvent dye such as Solvent Black 29, however, there is no disclosure of Solvent Black 28.

Taniguchi et al., which is drawn to ink jet ink, disclose the equivalence and interchangeability of solvent dye such as Solvent Black 29 with Solvent Black 28 as dyes that produce prints with excellent water fastness and light fastness (col.2, lines 19-24 and col.4, lines 58-61).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use Solvent Black 28 as the dye in the ink of Zhu et al. in order to produce ink with excellent water fastness and light fastness, and thereby arrive at the claimed invention.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. in view of Mead et al. as applied to claims 1-3, 5, 7, 8, 10-12, 14-15, and 17 above, and further in view of Yang (U.S. 5,825,391).

The difference between Zhu et al. in view of Mead et al. and the present claimed invention is the requirement in the claim of denatured alcohol.

Yang, which is drawn to ink jet ink, discloses the equivalence and interchangeability of ketone solvent, as disclosed by Zhu et al., with denatured alcohol as presently claimed (col.3, lines 57-63).

In light of the above, it would have been obvious to use denatured alcohol as the solvent in the ink of Zhu et al., and thereby arrive at the claimed invention.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. in view of Mead et al. as applied to claims 1-3, 5, 7, 8, 10-12, 14-15, and 17 above, and further in view of Lent et al. (U.S. 5,102,458).

The difference between Zhu et al. in view of Mead et al. and the present claimed invention is the requirement in the claim of corrosion inhibitor.

Lent et al., which is drawn to ink jet ink, disclose the use of corrosion inhibitor in order to reduce the corrosion of metal parts of the printer (col.1, lines 37-39 and 47-52 and col.3, lines 30-40).

In light of the motivation for using corrosion inhibitor disclosed by Lent et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use

corrosion inhibitor in the ink of Zhu et al. in order that the ink does not corrode the printer, and thereby arrive at the claimed invention.

9. Claims 1-2, 5, 7-8, 10-12, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vieira et al. (U.S. 5,098,477) in view of Mead et al. (U.S. 5,576,027).

Vieira et al. disclose non-aqueous ink jet ink comprising solvent dye, organic solvent such as methyl ethyl ketone, and styrene-acrylic polymer. It is disclosed that the dye forms solution in the organic solvent (col.7, lines 17-19, 28, and 51-68 and col.11, lines 59-61). Given that Vieira et al. disclose dye identical to that presently claimed, i.e. solvent dye, it is clear that the dye would intrinsically possess same tolerance to water and solubility in volatile solvent as presently claimed.

The difference between Vieira et al. and the present claimed invention is the requirement in the claims of pH modifier.

Mead et al., which is drawn to ink jet ink, disclose the use of pH adjusting agent to maintain the pH of the ink at 7-10.6 wherein the pH adjusting agent includes triethanolamine and diethanolamine. The motivation for using pH adjusting agent is to produce ink with good water resistance (col.12, lines 20-40).

In light of the motivation for using ph modifier disclosed by Mead et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use pH modifier in the ink of Vieira et al. in order to produce ink with good water resistance, and thereby arrive at the claimed invention.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vieira et al. in view of Mead et al. as applied to claims 1-2, 5, 7-8, 10-12, and 14-15 above, and further in view of Yang (U.S. 5,825,391).

The difference between Vieira et al. in view of Mead et al. and the present claimed invention is the requirement in the claim of denatured alcohol.

Yang, which is drawn to ink jet ink, discloses the equivalence and interchangeability of ketone solvent, as disclosed by Vieira et al., with denatured alcohol as presently claimed (col.3, lines 57-63).

In light of the above, it would have been obvious to use denatured alcohol as the solvent in the ink of Vieira et al., and thereby arrive at the claimed invention.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vieira et al. in view of Mead et al. as applied to claims 1-2, 5, 7-8, 10-12, and 14-15 above, and further in view of Lent et al. (U.S. 5,102,458).

The difference between Vieira et al. in view of Mead et al. and the present claimed invention is the requirement in the claim of corrosion inhibitor.

Lent et al., which is drawn to ink jet ink, disclose the use of corrosion inhibitor in order to reduce the corrosion of metal parts of the printer (col.1, lines 37-39 and 47-52 and col.3, lines 30-40).

In light of the motivation for using corrosion inhibitor disclosed by Lent et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use

corrosion inhibitor in the ink of Vieira et al. in order that the ink does not corrode the printer, and thereby arrive at the claimed invention.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
4/19/04